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| APPLICATION NO. | F          | ILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|------------|------------|----------------------|---------------------|------------------|
| 09/998,962      | 10/31/2001 |            | William B. Joyce     | Joyce 23            | 6491             |
| 41119           | 7590       | 02/24/2006 |                      | EXAM                | INER             |
| LESTER H        |            |            | VANNUCCI, JAMES      |                     |                  |
| MACUNGII        |            | · · · ·    |                      | ART UNIT            | PAPER NUMBER     |
|                 | •          |            |                      | 2828                |                  |

DATE MAILED: 02/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

|  | Application No.   | Applicant(s)  |  |  |  |  |
|--|---|---|--|--|--|--|
| Office Action Commons  | 09/998,962  | JOYCE, WILLIAM B.   |  |  |  |  |
| Office Action Summary  | Examiner  | Art Unit  |  |  |  |  |
| ·  | Jim Vannucci  | 2828  |  |  |  |  |
| The MAILING DATE of this communication app<br>Period for Reply   | ears on the cover sheet with the c  | orrespondence address -   |  |  |  |  |
| A SHORTENED STATUTORY PERIOD FOR REPLY WHICHEVER IS LONGER, FROM THE MAILING DA  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If NO period for reply is specified above, the maximum statutory period w  - Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b). | ATE OF THIS COMMUNICATION (6(a). In no event, however, may a reply be timed the apply and will expire SIX (6) MONTHS from cause the application to become ABANDONED | l. ely filed the mailing date of this communication. C (35 U.S.C. § 133). |  |  |  |  |
| Status   |   |   |  |  |  |  |
| 1) Responsive to communication(s) filed on 01 De   | ecember 2005.   |   |  |  |  |  |
| •—   | action is non-final.  |   |  |  |  |  |
| 3) Since this application is in condition for allowan  | Since this application is in condition for allowance except for formal matters, prosecution as to the merits is   |   |  |  |  |  |
| closed in accordance with the practice under E   | x parte Quayle, 1935 C.D. 11, 45  | 3 O.G. 213.   |  |  |  |  |
| Disposition of Claims  |   |   |  |  |  |  |
| 4) ☐ Claim(s) 1-19 is/are pending in the application. 4a) Of the above claim(s) is/are withdrawn from consideration.  5) ☐ Claim(s) is/are allowed.  6) ☐ Claim(s) 1-19 is/are rejected.  7) ☐ Claim(s) is/are objected to.  |   |   |  |  |  |  |
| 8) Claim(s) are subject to restriction and/or  | election requirement.   |   |  |  |  |  |
| Application Papers   |   |   |  |  |  |  |
| 9) ☐ The specification is objected to by the Examiner 10) ☑ The drawing(s) filed on 31 October 2001 is/are:  Applicant may not request that any objection to the or  Replacement drawing sheet(s) including the correction 11) ☐ The oath or declaration is objected to by the Examiner  | a) accepted or b) objected drawing(s) be held in abeyance. See on is required if the drawing(s) is obj  | ected to. See 37 CFR 1.121(d).  |  |  |  |  |
| Priority under 35 U.S.C. § 119   |   |   |  |  |  |  |
| 12) Acknowledgment is made of a claim for foreign a) All b) Some * c) None of:  1. Certified copies of the priority documents 2. Certified copies of the priority documents 3. Copies of the certified copies of the priority application from the International Bureau * See the attached detailed Office action for a list of  | s have been received. s have been received in Application ity documents have been received (PCT Rule 17.2(a)).  | on No<br>d in this National Stage   |  |  |  |  |
| Attachment(s)  1) Notice of References Cited (PTO-892)  2) Notice of Draftsperson's Patent Drawing Review (PTO-948)  3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  Paper No(s)/Mail Date  S. Patent and Trademark Office   | 4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal Pa   |   |  |  |  |  |

#### **DETAILED ACTION**

#### Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-4, 7 and 14-17 are rejected under 35 U.S.C. 102(b) as being anticipated by Pierson(5,812,258).

Claim 1, figure 2 discloses a snout(42) through which an optical fiber assembly(69) may be passed through a wall(82) of a case where the optical fiber assembly is movable within the snout so that it may be aligned with a laser(col. 2, line 19) within a laser module case after the laser module case is closed.

Claim 2, the optical fiber assembly(69) disclosed in figure 2 has a smaller cross-sectional exterior diameter than the snout(42) cross-sectional inner diameter so that the optical assembly may move in an X and Y-direction within the snout.

Claim 3, the snout(42) disclosed in figure 2 has an inner end and an outer end, and the case has an inner joint(36) to secure the snout to the optical assembly at the inner end, and where the optical fiber assembly(69) is of a smaller cross-sectional exterior diameter than the snout cross-sectional inner diameter so that the optical assembly may move in an X and Y-direction within the snout and may thereby be aligned with a laser positioned within the case.

Claim 4, figure 2 discloses an outer joint(50) wherein the aligned optical fiber assembly may be secured in position by the outer joint.

Claim 7, a portion of the case disclosed in figure 2 comprises a deformable material(32; and col. 5, line 1).

Claims 14 and 17, figure 2 discloses a laser module case used with an optical fiber assembly having an inner end and an outer end, a case comprising a hollow snout(42) having an inner end and an outer end, an inner joint(36) with the snout disposed through a wall of the case, an optical fiber assembly(69) disposed through the snout where the inner joint secures the snout to the optical fiber assembly by applying pressure to the outer surface of the snout at their inner ends, where the optical fiber assembly is of a smaller cross-sectional exterior diameter than the snout cross-sectional inner diameter so that the optical assembly may move in an X and Y-direction within the snout, and where the optical fiber assembly may be aligned with a laser positioned within the case after the case is closed.

Claim 15, figure 2 discloses an outer joint(50) that secures the snout to the optical fiber assembly at their outer ends.

Claim 16, figure 2 discloses a laser module that comprises a case.

## Claim Rejections - 35 USC § 103

- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
  - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

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invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 5-6, 8-9, 12-13 and 18-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pierson in view of Uno et al.(5,074,682).

Pierson does not disclose the following inner and outer joint limitations.

Claims 5-6, figure 7 of Uno discloses using a joint that has at least a portion that is compliant.

Claims 8-9, figure 7 of Uno discloses the use of flange joints.

Claims 12-13, Uno discloses using a welded joint(col. 6, line 35).

Claim 18, figure 7 of Uno discloses a deformable material to allow external alignment of an optical fiber assembly.

Claim 19, figure 7 of Uno discloses bendable elements and a flange for alignment of an optical fiber assembly.

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the above joints disclosed in Uno with the device disclosed in Pierson for improved alignment as disclosed in Uno.

5. Claims 10-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pierson in view of Takenaka et al.(5,381,499).

Pierson does not disclose the following limitations.

Claims 10-11, Takenaka discloses using a joint that is a solder joint(abstract).

It would have been obvious to one of ordinary skill in the art at the time of the invention to use the above referenced elements disclosed in Takenaka with the laser

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module disclosed in Pierson for improved high temperature operation as disclosed in Takenaka.

### Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Jim Vannucci whose phone number is (571) 272-1820.

Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center whose telephone number is (703) 308-0956.

Papers related to Technology Center 2800 applications only may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The faxing of such papers must conform with the notice published in the Official Gazette, 1096 OG 30 (November 15, 1989). The Technology Center Fax Center number is (571) 273-8300.

James Vannucci